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## GEOGRAPHICAL RECORD

### THE AMERICAN GEOGRAPHICAL SOCIETY

**Meetings of the Society.** The first regular meeting of the Society for the season of 1913-1914 was held at the Engineering Societies' Building, No. 29 West 39th Street, on Tuesday evening, November 25, 1913. Vice-President Greenough in the Chair. The following persons, twenty-four in number, recommended by the Council, were elected to Fellowship:

William T. Blaine,  
Ammi Brown,  
Prof. Dr. George Hatjidakis,  
Mrs. Austin Huntington,  
Charles C. Jackson,  
C. L. Jaanee,  
Miss Mary L. Jobe,  
Hiram Dyer McCaskey,  
Charles V. Miller,  
John R. Morrow,  
Miss Mary Proctor,  
John Knowlton Robinson,

John Jacob Rothermel,  
Henry Clay Shaw,  
Alvin Untermyer,  
T. Wayland Vaughan,  
William F. W. Veysey,  
Frederick K. Vreeland,  
Charles H. Weigle,  
William Young Westervelt,  
Guill S. Whitehouse.  
Orme Wilson, Jr.,  
Clark Wissler,  
Charles Zoller,

Professor Hiram Bingham, A.M., Ph.D., of Yale University, then addressed the Society on "The Land of the Incas" with lantern illustrations.

The Rev. Hudson Stuck, D.D., lectured before the Society on Tuesday, December 9, on "The Conquest of Mt. McKinley," with lantern illustrations.

*Lectures in January.* On January 6, Albert Bushnell Hart, Ph.D., LL.D., Litt.D., Professor of Government in Harvard University, lectured before the Society at the Engineering Societies' Building on "The Balkans and Their Peoples," with lantern views.

The Annual Meeting of the Society will be held on January 20, 1914, at the Engineering Societies' Building. On that occasion Frederic Dean, A.M., LL.D., will give an illustrated lecture on "Porto Rico; Our West Indian Outpost."

**The Society's House Open All the Year.** Until last summer it was the practice to close the Society's house during August. The experiment of keeping the house open throughout the summer in 1913 was a success. It contributed to the convenience of the work in the building and maintained uninterrupted attention to the needs of geographical workers who have occasion to consult our literary or map collections. The public interest in this innovation was indicated by the fact that 290 persons visited the house in August last. The House Committee, at the November meeting of the Council, recommended that the precedent established last summer be continued hereafter.

**Binding our Library Books.** Some months ago 5,000 of our library books were sent out for binding. Of these, 3,400 have been returned and distributed to their proper places in the book stacks. The policy of binding all our library material excepting thin pamphlets, which are filed and indexed in pamphlet cases, conduces to convenience in handling the books and to their preservation.

**Presented to the Society.** A friend of the Society has presented two large framed maps now hanging on the wall in the Exhibition Hall. These are facsimiles of the Royal Spanish World Map about 1523 and the Sebastian Cabot World Map of 1544; also a picture woven in silk of the landing of Columbus, which is on the wall of the reading room.

**Exhibition of the Society's Collection of Wall Maps, Atlases and Text Books.** The collection was displayed in the rooms of the Rhode Island Normal School, Providence, R. I., during November. The maps were in place for the meetings of the Rhode Island Institute of Instruction and also for the Barnard Club, an organization of the men teachers of the state, and special effort was made to direct the attention of the latter body to the exhibit. Many visitors of standing in the community also went over the collection and expressed high appreciation of the efforts of the American Geographical Society to place this fine material before teachers. As an educative opportunity for the students of the Normal School, the display was well worth the effort, and results from it have already begun to appear.

The general tendency to publish maps of cheaper material without detracting from their effectiveness, and thereby make it possible for a school to select a large number of subjects is a noticeable advance in map work and was a distinguishing mark of the exhibit. The series of maps by Vidal de la Blache is a type of this new idea.

The following notes on the maps for the perusal of visitors helped them to consider the exhibits more intelligently:

#### NOTES ON WALL MAPS

1. A wall map should display its features in such a way that they can be seen from every part of the room.

(a) A glazed surface, because of the different angles of reflection of light, does not permit of this.

(b) Names in small type, especially if they appear in numbers, tend to confusion.

2. A physical wall map is more valuable than a political. For most countries, as Australia, the political wall map is of slight value.

3. A physical wall map should follow the rules generally accepted by geographers:

(a) A universal color scheme. Lowlands in green, and highlands in brown. Two or more shades of brown may be used, the deeper for greater heights. An intermediate color, white, for uplands may be used.

Water in blue, the deepest shades for the greatest depths. At least three shades are desirable, to show continental shelf, continental slope and ocean bottom.

(b) The colors should have proper values so that the green or brown be not preeminent.

(c) Localities may be indicated by a large dot or circle. The name may be indicated by the initial letter, a number or by very small type if it can be done without confusion.

(d) Political divisions may be indicated on such maps by heavy (red) lines.

4. The newest idea is to have a single map for a single feature and new maps are being published at a small cost each with this end in view. Note the series by Vidal de la Blache and by Philips.

5. The Mercator Projection of the world which distorts area and shape is being gradually replaced by Mollweide's Homolographic (equal area) Projection which distorts shape only.

6. It is advisable in early grades to use a physical wall map only. Beginning about the sixth grade, the pupils may chart information on a map. With strong training on physical maps, using international colors, it will not be confusing at this stage if pupils color cotton areas, population areas, and the like.

#### NORTH AMERICA

**Local Glaciation of the White Mountains.** The Presidential Range of the White Mountains, according to J. W. Goldthwaite (*Appalachia*, XIII, No. 1), owes its most rugged forms to local glaciation before the coming of the general ice sheet. The local glaciers carved the cirques about the crest

that are now known as King's and Tuckerman's Ravines and the Bumpus Basin, among others, all typical, glacial cirques. Above these cirques the mountain forms are pretty much as they were before glacial time, the gentle slopes of a great monadnock above the peneplain of southern New England, which then stood much lower than now. Uplift caused the erosion of the deep normal gullies in which the local glaciers accumulated before the general glaciation. The great ice sheet left moderate but demonstrable effects—striation of ledges, moving of blocks, and especially the importation of ground moraine into the north facing cirques. The paper is admirably written and illustrated.

MARK JEFFERSON.

**Rainfall Data for Botanists.** The standard rainfall data usually included in climatological reports are often insufficient for botanists. Annual and monthly means of rainfall are all very well as far as they go, but they do not go far enough. It has been shown that the rainfall averaged by the crop year bears a much closer relation to the crop yield than does the average for the calendar year. And, twenty years ago, Dr. Gustavus Hinrichs showed, in his analysis of rainfall at Iowa City, how important it is, in correlating rainfall and crop yield, to consider the character of the rainfall, as well as the amount. The seasonal rainfall amounts are not usually included in climatological reports, yet these, rather than the annual and monthly amounts, are often the determining control of vegetation.

Dr. R. M. Harper, in a recent report on the Economic Botany of Alabama (*Geol. Survey, Ala., Monograph 8, 1913*), says that there is a general correspondence between hardwood forests and regions of heavy winter rains (Dec.-Feb.), and between the principal long-leaf pine area and heavy summer rains (June-Aug.). In another paper, entitled "A Botanical Cross Section of Northern Mississippi, with Notes on the Influence of Soil on Vegetation" (*Bull. Torrey Bot. Club, Vol. 40, No. 8, 1913*), Dr. Harper attributes the absence of certain bog plants from northern Mississippi to the seasonal distribution of rainfall there. Over the pine barren portions of the coastal plain the increased rainfall of summer largely counterbalances the higher evaporating power of the summer sun. Hence the water level is more uniform there, and conditions are favorable for the development of peat and of bog plants. Again, in a discussion of "The Forest Regions of Mississippi in Relation to the Lumber Industry" (*Southern Lumberman, Nashville, Tenn., Aug., 1913*), the same author points out that, while pines and evergreens are practically unknown in the northern half of the state, the south, where the summers are wetter, has a good deal of short leaf pine. These various references to the seasonal rainfall as a controlling factor in the distribution of vegetation indicate once more the need of attention on the part of climatologists to the requirements of their fellow-workers in other branches of science.

R. DEC. WARD.

**Has Climate Changed in New Mexico?** In a report upon "Climate and Evidence of Climatic Changes," forming part of an account of "The Physiography of the Rio Grande Valley, New Mexico, in Relation to Pueblo Culture" (*Bull. 54, Bureau of American Ethnology, 1913*), Messrs. Junius Henderson and Wilfred W. Robbins conclude that the various lines of evidence, botanical, archaeological, historical, physiographical, which they have investigated point to a progressive desiccation of the region since the beginning of the pueblo and cliff-dwelling period. They find "no important evidence inconsistent with this view," but are careful to say that the change in population may possibly be ascribed to other causes. The authors believe that, if such desiccation has occurred, it was accompanied by numerous slight fluctuations in climate, and must have been "infinitely slow." The evidence of recent desiccation is not regarded as conclusive. Several suggestions are made for future work, and it is clear that the question of progressive climatic change is not regarded as settled.

R. DEC. WARD.

**A Periodical Devoted to New Mexico.** In July last the first number of a quarterly magazine entitled "Old Santa Fe, a Magazine of History, Archaeology, Genealogy and Biography" was issued by the Old Santa Fe Press.

Its editor is Ralph Emerson Twitchell, whose work in two volumes "The Leading Facts of New Mexican History," was reviewed in the April and October numbers of the *Bulletin*. Associated with Mr. Twitchell are eight of the leading writers on those phases of New Mexico to which the magazine is devoted. The contents of the first two numbers give promise that the magazine will be a valuable record in this rich field for research. Among the works for publication is the Spanish manuscript collection of the Historical Society of New Mexico, translated and annotated.

**The Prince of Monaco's Visit to This Country.** Albert I, Prince of Monaco, the well-known oceanographer, spent a few weeks in this country in September and October. A dinner in his honor had been arranged by the American Geographical Society and the American Museum of Natural History, but owing to the inability of the Prince to reach New York from the Far West at the only convenient time, the projected dinner was reluctantly abandoned. A lecture by the Prince, under the auspices of the New York Academy of Sciences, was given at the American Museum of Natural History which kindly sent tickets to the Fellows of the American Geographical Society.

About 2,000 persons heard the lecture on Oct. 27. After referring briefly to the foundation of the Musée Océanographique in Paris and the publication of the Carte Générale Bathymétrique des Océans, the Prince devoted the greater part of the evening to a description of his numerous cruises and their results. With the aid of lantern slides and motion pictures he described the various observational methods employed by his staff (for a description see "L'Océanographie" by J. Richard, Paris, 1908, reviewed in the *Bull.*, Vol. 41, 1909, pp. 127-128). These included deep sea soundings, the determination of the physical properties of ocean water, color, salinity, temperature, density, etc., the charting of currents by means of objects set adrift, the investigation of the upper atmosphere by means of *ballons sondes* and, primarily, the study of the life of the ocean. The investigation of his staff in the latter domain, the Prince said, had led to various important discoveries. Among them was the fact that, contrary to former belief, organisms living at the greatest depths were capable of rising to the surface without harm, in spite of the great decrease in pressure. Such organisms had frequently been taken in dragnets on the surface at night. Referring to the wealth and variety of organisms disclosed in great depths the Prince expressed the belief that life on the earth had its origin in the depths of the sea and not on land.

The motion pictures gave a realistic idea of the various activities of an oceanographical cruise. Some showed how soundings are taken, some how dragnets and trawls are lowered and how their contents are examined after they have been raised again, some showed the release of balloons and box kites with meteorological apparatus for the observation of the upper air. The final motion picture, which dealt with a whale hunt, showed every stage of the chase from shooting the whale with a harpoon gun and hauling it on board by means of a winch to its dismemberment by the scientific staff, which included the opening of the stomach and the finding in it of valuable and unknown fish and other organisms.

#### SOUTH AMERICA

**The Vegetation of Southernmost South America and the Sub-Antarctic Islands.** On November 17, 1913, Dr. Carl Skottsberg, professor of botany at the University of Upsala, Sweden, lectured on this topic before the New York Academy of Sciences. He described the vegetation of the region of heavy rainfall on the west slope of the Andes from about lat. 41° to Cape Horn, the dry eastern slopes in the same latitude, the Falkland Islands, the island of South Georgia, and the edge of the Antarctic Continent. The Chilean forest is said to be the only cold-temperate rain-forest in the world. It is very dense, and the trees are mostly broadleaved evergreens. Among the mountains where the climate is a little drier a species of *Libocedrus* (a genus represented also in our Pacific Northwest) forms small groves which are the only analogue in the southern hemisphere of the great northern coniferous forests. The Patagonian side is mainly treeless, and the vegetation is characterized by grasses and a large number of plants which form dense tough

cushions, a type which is also frequent in New Zealand. The Falkland Islands are windy and treeless and covered with peat. Much damage has been done to the native vegetation by sheep in the last sixty years. South Georgia has snow most of the year, and only nineteen species of flowering plants. Bare rocks on the edge of the Antarctic Continent support two species of flowering plants and about fifty mosses. R. M. HARPER.

## AFRICA

**First Longitude Determination by Wireless in French West Africa.** An account of the first wireless determination of longitude in French West Africa is given by Messrs. Schwartz and Villatte in *La Géographie* for Sept. 15, 1913 (Vol. 48, No. 3, pp. 137-146). The time observations were made at Konakry and Kissidugu. A mean difference of 14' 22.79" was determined between the two localities. The work was divided into three stages. The first consisted of astronomical observations taken at the two stations. This was followed by comparison of the Kissidugu chronometer and the Konakry electromagnetic clock by means of Hertzian signals sent from the last named place. A final set of astronomical observations was required to complete the task. The Kissidugu receiving station consisted of an antenna provided with 5 aerial wires, each 50 meters in length, for which 2 millimeter bronze telephone wires were used. This contrivance rested at one end on a mast-head 20 meters high and an 11-meter pole placed on top of a tree at the other. The antenna was connected with a receiver specially constructed to enable detection of the beats of the chronometer and the ticking of the sending station.

**Agriculture in the Oases of Tripoli.** Great effort is being made by the Italian government to promote agriculture in its newly acquired African colonies. According to the *Rivista Coloniale* for Sept. 15, 1913 (Vol. II, No. 5, p. 129), the colonial authorities have recently passed a decree by which owners of orchards in the oases of Tripoli, including the districts of Menscia, Zanzur and Tagiura, were summoned to re-occupy their lands before Sept. 30th, 1913. The government is anxious to insure abundant crop returns for the ensuing year and the decree stated that failure to comply with its provisions would result in the properties being farmed out. This, however, would be undertaken for the account of their owners.

**Sahara Dust over the Atlantic.** The portion of the Atlantic Ocean between the Canary and Cape Verde Islands was called *mare tenebrosus* by Edrisi in the twelfth century, because of the frequent darkening of the sky in that region by dust. The atmosphere was known to be so turbid at times as to make navigation by the vessels of those days dangerous. In the middle of the last century, Ehrenberg made a painstaking investigation of the origin of this dust, and published a series of papers on the subject in the *Mitteilungen* of the Berlin Akademie der Wissenschaften, in which he stated his belief in the South American origin of the dust. In 1878, Hellmann published an important paper ("Ueber die auf dem Atlantischen Ozean in der Höhe der Kapverdischen Inseln häufig vorkommenden Staubbälle," *Monatsber. Berl. Akad. Wiss.*, 1878, 364-403), in which the meteorological and geographical aspects of this phenomenon received special attention. Ehrenberg's view as to the non-African origin of the dust was there shown to be mistaken. Two of the points made by Ehrenberg against the African origin were (1) the fact that the Sahara sand is white, while the dust is really reddish; and (2) that the easterly winds necessary to carry this sand to the Atlantic are not present. These two points are now taken up by Hellmann in a recent paper ("Ueber die Herkunft der Staubbälle im 'Dunkelmeer,'" *Sitzungsber. kgl. preuss. Akad. Wiss.*, XIV, 1913), and the most recent observations from the western Sahara are drawn upon for information. Hellmann clearly establishes the fact that the easterly winds which are necessary for the transportation of the dust to the Atlantic exist over the district in question, and, further, that there is an abundance of reddish sand over the inner portions of both the Saharan and Libyan deserts. Thus two of the remaining inaccuracies of Ehrenberg's discussion have been satisfactorily cleared up.

When meteorological conditions are favorable, the districts along the margins of the great deserts of the world very commonly receive large amounts of dust. Along the eastern coast of Asia the northwest winds of winter bring so much sand from the deserts and loess areas of the interior that these winds are called "yellow winds" over the lowland of Peking-Tientsin, and also quite generally in Mongolia. This dust is occasionally carried far out to sea.

R. DEC. WARD.

#### ASIA

**The Service Géographique de l'Indo-Chine in 1912.** Topographic work was undertaken between the Annam mountains and the Mekong lowland. Part of the region connecting Laos and the sea was surveyed for the first time. In Cambodia two field parties were at work gathering data for maps on a scale of 1:40,000 and 1:80,000. This work precedes more detailed surveys which will be made in connection with a proposed railroad to Sisophon. A field party was also at work in northern and southern Annam respectively. Mapping on a scale of 1:20,000 progressed along the deltas of the Phan-Thiét and the Phan-Ri as well as in the Thanh-Hoa region. Two field parties in Laos completed the triangulation network for mapping, this year, on a scale of 1:80,000, the region which will be traversed by the railroad connecting Quang-Tri and Ka-Bai. A third party began preliminary geodetic work in the recently annexed province of Siem-Reap.

The work on hand in the cartographic department of the institution was varied. Six of the 1:25,000 sheets which were revised in 1911 were published. The Bac-Ninh sheet of the 1:100,000 general map was partially revised. Sheets of the environs of Hanoi and Saigon on a scale of 1:50,000 were published. In addition, maps were compiled for different government bureaus. Among the noteworthy sheets in this category are the geological map of Eastern Yunnan on a scale of 1:500,000 and various large scale plans for the use of the Artillery Corps.

The annual report published by the Service Géographique de l'Indo-Chine contains succinct topographic, geologic, ethnographic and economic descriptions relating to each sheet of the region surveyed in 1912.

**A New Depression in Western Asia.** Attention is called in the *Zeitschrift der Gesellschaft für Erdkunde zu Berlin* (No. 8, 1913, p. 641) to a hitherto unknown depression in Mesopotamia, the bottom of which is occupied by a lake whose surface is about sixteen feet below sea-level. The sunken area is sixty-three miles northwest of Bagdad. It was discovered during the surveys by engineers of the Mesopotamian Irrigation Mission between 1909 and 1911. The leveling undertaken by this expedition has thrown considerable light on the topography of lower Mesopotamia. Unfortunately the presence of hostile Arabs near the lake prevented surveying from being extended around its entire periphery. Its eastern end alone could be determined through measurements, which, starting from near Saklawie, were carried northward to about ten miles west of Sabkha. According to a statement on Map No. 2 of "Plans of the Irrigation of Mesopotamia" by Sir Wm. Willcocks, it is believed that the depression is very long as the Tharthar River terminates at its northern end.

#### EUROPE

**Depth of the Ejecta of the Eruption of Mt. Vesuvius in 1906.** By means of photographs taken from the same spot in 1904 and 1913 Dr. P. Schlee in the October number of the *Geographische Zeitschrift* (Vol. 19, 1913, No. 10, pp. 577-578) calls attention to the filling up of the Atrio del Cavallo—the depression which lies on the inner side of the old crater rim of the Monte Somma, between it and the northern slopes of the new cinder cone of Mt. Vesuvius—by the ejecta of the volcano during the violent eruption of April, 1906. To the detritus normally brought down by the erosion of the new cinder cone was added the greater part of the lapillæ of this eruption, as these were projected in a northeasterly direction. The inner wall of the old crater rim, at the two points of which comparative photographs were taken, had a height, prior to the eruption of 1906, of 456 and 607 feet respectively, according to the official

map on the scale of 1:10,000 of the Italian Military Geographical Institute. To judge by the present position of the floor of the Atrio del Cavallo the wall at these two points is now approximately 325 feet and 500 feet high. The depth of the accumulations due to the eruption of 1906 would, therefore, be roughly 130 and 110 feet at these points. An additional criterion for the determination of this depth is afforded by comparing the recent detailed map of Mt. Vesuvius on the scale of 1:10,000 by A. Castiglione published in *Petermanns Mitteilungen* in November, 1912 (see *Bull.*, Vol. 45, 1913, p. 79, under "Italy" and p. 320 under *Erratum*), with the official Italian map just referred to. On Castiglione's map the floor of the Atrio is 100 feet and 80 feet higher respectively at the two points in question than prior to the eruption of 1906. Although Dr. Schnell considers these figures too small, he points out that accurate figures are of no consequence because the depth of the ejecta varies in different parts of the Atrio. They are sufficiently correct, however, to convey an impression of the amount of material thrown out by the eruption of 1906.

#### **Cartographic Work of the Ordnance Survey during 1912-1913.**

The completion of all the field work for the survey of Ireland on a scale of 1:2,500 is announced in the Report of Progress of the Ordnance Survey for the year 1912-1913. Most of this survey has been published and it is expected that by the end of December, 1914, the whole will be available in printed form. At present all of the United Kingdom, with the exception of waste and mountainous areas, has been surveyed on this scale. This country is therefore the only one in the world "of which large scale cadastral maps are available for the whole cultivated or occupied surface."

**Influence of the New Balkan Frontiers.** Recent boundary adjustments in the Balkans are causing racial migrations. The movement is particularly noticeable along the Greco-Bulgarian frontier. This part of Macedonia was peopled by Greeks and Bulgarians before the war. The Greeks, however, were distributed mainly in the cities, while the Bulgarians represented the rural element in the population. These Bulgarian farmers and peasants are now leaving Greek territory and emigrating to the adjoining Bulgarian districts. On the other hand, the Greek merchants and traders of the Macedonian towns assigned to Bulgaria are leaving their homes to settle in the newly acquired Greek territory. A similar movement is taking place, though to a lesser degree, along the Greco-Servian boundary.

LEON DOMINIAN.

**Navigational Exhibit of the Deutsche Seewarte.** Under date of October, 1913, the Deutsche Seewarte of Hamburg announces that the collection of models, nautical instruments and drawings gathered by its first director, the late Dr. Neumayer, has again been placed on view. The collection is to be increased by a selection of nautical instruments, both those used in the merchant marine and in the navy, oceanographical and meteorological instruments. The collection will aim to be critical rather than comprehensive.

**Le Congrès International d'Ethnologie et d'Ethnographie.** The International Congress of Ethnology and Ethnography will meet at Neuchâtel, Switzerland, June 1-5, 1914.

#### **POLAR**

**The Stefansson Expedition.** A dispatch from Vilhjalmur Stefansson to the New York *Times* dated Point Barrow, Alaska, October 30, said that the *Karluk*, his largest vessel, beset in the ice, drifted towards the north past Point Barrow on August 8. On the same day, however, she got free of the ice, but was again beset in the heavy pack on August 12 about 15 miles off shore in long. 147° W. On August 17 she was free once more and drifted with the wind parallel with the coast till September 10. She stopped drifting in lat. 70° 47' N. and long. 150° 7' W., not over 35 miles north of the Alaskan coast and about 140 miles south of east of Point Barrow, a little east of north of the mouth of the Colville River. Believing the *Karluk* was then fast in the ice for the winter Stefansson left the ship with Cook, Genness, Connell, Wilkins and two Eskimos to go ashore and secure a supply of fresh meat. He had two sleds and twelve dogs.



Two days later a northeast gale broke up the ice. There was a dense fog, and Stefansson says he does not know whether the ice carried the *Karluk* west or whether it freed her so that she could make progress to the east. At all events she should be safe as the wind opened the ice pack and the *Karluk* therefore was not under pressure. There were 25 persons including Captain Bartlett aboard the ship.

Stefansson proceeded to Point Barrow where he learned that his vessels *Alaska* and *Mary Sachs* were both safe and were wintering at Collinson Point. His steam whaling bark *Belvedere* was safe behind grounded ice three miles off shore near the 141st meridian. He expected to leave Point Barrow on November 3 and travel east along the coast. None of the plans of the expedition have been abandoned. They are merely delayed.

In a despatch Stefansson sent to the Canadian Government he says that he is planning an ice expedition to the Mackenzie Delta, making surveys and taking soundings for steamer routes. He thinks the *Karluk* has drifted west with the ice. There is no reason as yet to fear for the safety of the expedition or the ultimate carrying out of its plans. The *Karluk* is a seaworthy boat specially strengthened to resist ice pressure.

**The 1913 Scientific Campaigns in Spitzbergen.** During July and August of this year three parties were engaged in topographic, hydrographic, and geologic surveying. Investigations were confined to the district lying between Ice Fiord and Van Mijen Bay. According to C. Rabot, in *La Géographie* (Vol. 48, No. 3, Sept. 15, 1913, pp. 194-195), the 1:50,000 map of this peninsula was completed during this season. Attention has been called to this map in a recent number of the *Bulletin* (Vol. 45, No. 6, June, 1913, p. 450).

Hydrographic work included examination of the southern shores of Ice Fiord around Green Harbor and the determination of banks within a distance of 5 miles off shore along the western coast between the entrances to Ice Fiord and Bell Sound. One of these banks was discovered about four miles from land at a depth of two meters.

The region which is thus being investigated is the site of a settlement as far north as that occupied by the Eskimos at Etah, northwest Greenland. The discovery some twelve years ago of extensive coal beds in the vicinity of Advent Bay led to the founding of Longyear City on its shores. This mining camp is provided with a car-line and an electric plant. Its population consists of about 200 miners, the majority being Scandinavians.

Green Harbor is an important point in the whaling industry. Its commodious bay provides a favorable base for whaling boats. An oil plant is in operation in its vicinity. This outpost of civilization is connected by a wireless station with Scandinavia.

LEON DOMINIAN.

**The Magnetic South Pole.** Recent wireless despatches from the Australian South Polar Expedition bring the news that the Magnetic South Pole has not yet been exactly located. The statement had been accepted that its position was determined in 1909 by Mr. David of the Shackleton Expedition. It appears, however, from recent investigations by Dr. Mawson that while David was really within the area where the magnetic needle from time to time assumes a vertical position, he was not in the center of this area, which is evidently much larger than has hitherto been supposed. There are probably several local poles distributed around the magnetic chief pole; and Dr. Mawson believes that he has been in the neighborhood of one of them in the southeastern part of Adelie Land. (*Zeitschr. Gesell. für Erdk. zu Berlin*, No. 7, 1913, p. 571).

#### OCEANOGRAPHY

**A Proposed International Reconnaissance of the Atlantic Ocean.** Messrs. O. Petersson and C. F. Drechsel, vice-president and general secretary of the *Conseil Permanent International pour l'Exploration de la Mer*, were intrusted with the task of drawing up a programme outlining the organization of an international survey of the Atlantic Ocean. A working plan prepared by them was, in September, 1913, issued as a Memorandum from Vol. XVI of the publications of the Permanent International Council. The writers say that a systematic hydrographical and biological investigation of the entire

Atlantic is a task too great to be now attempted. They therefore confined their attention to the part of the Atlantic beginning with the submarine zone of relief known as Telegraph Plateau, between lats. 50° and 55° N. and extending southward to lat. 10° N. As a north-and-south ridge divides the basin of the Atlantic into two great depressions in which hydrographical conditions differ it is advisable to survey each of these depressions independently. They suggest three lines of transatlantic investigations. The northernmost is across Telegraph Plateau between the Orkney Islands and the easternmost projection of the Newfoundland Bank. The depths here range between 1000 and 3000 meters, and the so-called Gulf Stream Drift would be traversed by the section.

Then two southern lines of survey are suggested for the investigation of the longitudinal deeps. The northernmost starts from the mouth of the English Channel and is directed north of the plateau of the Azores to the Caribbean Sea. The western deep is crossed diagonally by this section between latitudes 45° and 20° N. The taking of soundings of the Nares and Porto Rico Deep is thus made possible. The other proposed route is between the Strait of Gibraltar and the island of Trinidad. This line, passing south of the Azores plateau, would permit observation of the eastern depression. The Moseley Deep, the central submarine ridge and the Sargasso Sea might then be investigated concurrently.

The investigation of coastal seas is also recommended. Ice conditions should be studied east and west of Greenland. A detailed survey of the north-eastern Atlantic should be carried on from Iceland and the Faroe-Shetland ridge to Spitzbergen and Novaya Zemlya, including the North Sea, the Skagerak, the Kattegat and the Baltic. So far no hydrographical section through the Labrador Current has been obtained. The study of the waters on the Newfoundland Bank and adjacent areas is of special interest as it deals with the zone of conflict between the Gulf Stream and the Labrador Current.

It is suggested that cruises three months apart be made simultaneously in these various fields of observation so as to survey conditions existing throughout the whole year in the Atlantic Ocean. Practically all oceanographic investigations in the northern section of the Atlantic have been made during the summer or fall. A comprehensive view of conditions throughout the year must first be ascertained before direction can be given to more specialized researches.

So broad a programme can be carried out most profitably with the cooperation of the various governments whose citizens are interested in navigation and fishing in the regions examined. It is suggested that vessels sent to represent European governments at the inauguration of the Panama Canal in 1915 be equipped with all the apparatus needed to prepare hydrographical sections along their routes. These preliminary operations should be confined, in the opinion of Messrs. Petersson and Drechsel, to the zone between the surface and a depth of 1000 meters, in which food fishes and plankton thrive.

This subject has received attention at the meetings of the International Geographical Congresses. At London in 1895 and at Berlin in 1899 resolutions were passed recognizing the economic importance of oceanographical reconnaissances. At Geneva in 1908 a special commission bearing the title of "Commission internationale de l'Atlantique" was appointed, with H. S. H. Prince Albert of Monaco as its president. At the Tenth International Geographical Congress in Rome, 1913, a resolution was passed recommending preliminary exploration in the North Atlantic to throw light on the dimensions and nature of periodical variations of water layers found between the surface and a depth of 1000 meters. Temperature and salinity observations at the surface as well as more extended investigation of currents was also urged.

#### PERSONAL

Mr. N. H. Darton of the U. S. Geological Survey has recently returned to Washington after a long geological exploration in New Mexico.

An appropriation from the Shaler Memorial Fund of Harvard University has been granted to Professor W. M. Davis to defray, in part, the expense of his trip to the South Pacific to study the physiographic evidence relating to the problem of coral reefs.

Professor Julius Hann, the eminent climatologist of Vienna wishes to find

a purchaser for his meteorological library, which has accumulated on his hands far beyond his power to take care of it properly. Owing to the fact that he has to live on a pension, since he was retired from active government service and is obliged to live in small quarters, the greater part of his library is already packed away in boxes. His great collection of books and separates will be a fine addition to the library of any institution that desires to complete its collection of books bearing on meteorology and climatology. (*Science*, No. 987, Vol. 38, 1913, p. 768.)

Dr. H. R. Mill, director of the British Rainfall Organization, has been compelled to take a complete rest for a time on account of his eyes, which have been affected by the continual strain of his work. He will leave in November for a voyage to New Zealand, and is advised not to attempt to take up for at least a year any work which involves close attention. It is hoped that the rest and change will have a decidedly beneficial effect upon Dr. Mill's eyesight and general health. (*Nature*, No. 2296, Vol. 92, 1913, p. 272.)

#### OBITUARY

ALFRED RUSSEL WALLACE. This distinguished naturalist died in England on November 7, 1913, in his 91st year. For sixty-four years he had been in active service as scientific explorer, thinker and writer. In 1845 he invited Henry W. Bates, a fellow naturalist, to accompany him on his four years' journey to the Amazon and the Rio Negro (1848-1852). Bates, himself a naturalist of great ability, inspired Wallace with his own zest for searching out the wonders of insect life, a subject which Wallace finally made his own. His "Narrative of Travels on the Amazon" was published in 1853. Between 1854 and 1862 Wallace traveled in the eastern part of the Dutch East Indies. The vast array of facts he collected on the natives, forests, birds and mammals and the generalizations he evolved from his data given to the world in his "The Malay Archipelago" established his fame as a scientist of the first rank. Darwin and Wallace each worked out the problem of evolution independently and before Darwin had published his idea he received a long letter from Wallace telling of the same discovery as it had come to him. Sir Joseph Hooker and Prof. Lyell brought the two independent manuscripts together and there was thus a joint publication of the discovery.

Among Wallace's voluminous later writings the world was most attracted to "The Zoological Geography of the Malayan Archipelago" (1860) in which the author announced his discovery of the Bali-Lombok boundary line (now commonly known as the Wallace Line) between the Asian and the Australian zoological regions. "The Geological Distribution of Animals" (1876) and "Island Life" (1881) gave Wallace rank as the founder of the science of zoogeography; and in "Tropical Nature" (1878) he reviewed the whole subject of the colors of animals in relation to natural and sexual selection.

Wallace also took great interest in some phases of social and economic problems. Among his later essays were papers on "The Nationalization of Lands" and "Studies, Scientific and Social"; and his last published essay "Social Environment and Moral Progress" appeared in 1913.

RESOLUTIONS ADOPTED ON THE DEATH OF EX-COUNCILLOR HERMANN C. VON POST. At the meeting of the Council, on Nov. 20th, the following resolution relating to the death of Mr. Hermann C. von Post was adopted:

"Resolved: That by the death of Mr. Hermann C. von Post on October 10, 1913, the Society has lost one of its oldest and most valued members. He became a Fellow of the Society in May, 1875, and in January, 1902, a member of the Council, from which he retired in December, 1910, because of advancing years, greatly to the regret of his colleagues. During his long period of service he was assiduous in his attention to the duties of Councillor. His great experience and excellent judgment made his advice most valuable; and his unflinching interest and loyal support were united with great liberality whenever assistance was needed. The zeal of the active workers in the Society was stimulated by the assurance of his cooperation at all times and his loss is felt by his fellow members as that of a long attached friend as well as colleague. We tender to his family our sincere sympathy in their affliction, and we direct the Secretary to forward to them a copy of this minute."